

What is Claimed is:

1. A peptide analog of lung surfactant protein B comprising:
a dimer of a synthetic peptide from an N-terminal domain of mammalian lung
surfactant protein B.

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2. A peptide analog of claim 1 wherein the analog is a dimer of the N-terminal
domain of amino acid residues 1-25.

3. The peptide analog of claim 1 wherein an amino acid residue 11 is alanine.

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4. The peptide analog of claim 1 having a Cys 8 to Cys 8 disulfide link.

5. The peptide analog of claim 1 wherein the mammal is a human.

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6. A method to treat respiratory distress syndrome comprising:
administering a pharmaceutically compatible composition comprised of a dimer
of a synthetic peptide from an N-terminal domain of lung surfactant protein B.

7. The method of claim 6 wherein the pharmaceutically compatible composition is
20 further comprised of administering an animal-derived lung surfactant protein.

8. The method of claim 7 wherein the animal-derived lung surfactant protein is a porcine lung lavage extract.

9. The method of claim 7 wherein the animal-derived lung surfactant protein is a
5 calf lung lavage surfactant.

10. The method of claim 7 wherein the animal-derived lung surfactant protein is a bovine lung extract.

10 11. The method of claims 6, 7, 8, 9 or 10 wherein the pharmaceutical compatible composition is further comprised of a phospholipid.

12. The method of claim 11 wherein the phospholipid is dipalmitoylphosphatidylcholine.

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13. A pharmaceutical composition comprising:
a peptide analog comprised of a dimer of synthetic peptide from an N-terminal domain of lung surfactant protein-B; and
an animal-derived lung surfactant.

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14. The pharmaceutical composition of claim 13 wherein the peptide analog is human SP-B1-25.

15. The pharmaceutical composition of claim 13 wherein the peptide analog is a Cys 11 to Ala 11 variant of SP-B1-25.

5 16. The pharmaceutical composition of claims 13, 14 or 15 further comprising a phospholipid.

17. A peptide analog of mammalian lung surfactant protein B comprising:
a dimer of lung surfactant protein B having a Cys 8 to Cys 8 disulfide link.

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18. The peptide analog of claim 17 wherein the dimer is a homodimer.

19. The peptide analog of claim 1 wherein the dimer is a homodimer.